## **REMARKS/ARGUMENTS**

Claims 1 to 33 are pending. Claims 6, 18, 19 and 20 have been amended – these amendments are treated below.

The use of the term "aids" in Claims 6, 19 and 20 has been amended to the more appropriate and art recognized term "auxiliaries". The translation of the German term "Hilfsstoffe" is more correctly "auxiliaries".

The Office Action stated that in light of applicants' amendment of Claims 11 and 29 to 33 (regarding the utilization against the three stated viruses in an alternative listing), the rejection under the second paragraph of 35 USC § 112 is withdrawn.

The Office Action stated that in light of applicants' amendment of Claims 1 to 17 and 20 to 33 (regarding the "process of utilizing"), the rejection under the second paragraph of 35 USC § 112 and 35 USC § 101 is withdrawn.

The Office Action states that however, since amended Claims 18 and 19 do not recite the "process of utilizing", the rejection for these specific claims under the second paragraph of 35 USC § 112 and 35 USC § 101 will be maintained. Both claims have been amended in such manner and entry of such amendments reduces the issues on appeal.

The Office Action stated that applicant's arguments, see pages 10 to 16, filed 10/23/2007, with respect to the rejection of Claims 1 to 10 and 12 to 28 under 35 USC § 103(a) as being unpatentable over McCue et al. (U.S. Patent No. 5, 908, 854) have been fully considered but are not persuasive. The rejection fails in law and fact.

Claims 1 to 10 and 12 to 28 have been rejected under 35 U.S.C. 103(a) as being unpatentable over McCue et al. (U.S. Patent No. 5,908,854). Applicants traverse this rejection.

The Office Action stated that applicant argues that McCue et al. requires the presence of a solvent that is phenoxyalcohols and/or glycol ethers. The Office Action stated however, instant claims have the term "comprising" which allows for the presence of these solvents. The Examiner has missed the essence of Section 103(a). This rejection does not involve

anticipation. The issue is not whether or not the claims allow inclusion of such chemicals. Instead the issue is whether one ordinarily skilled in the art would even consider using McCue et al. in the search for applicants' claimed invention — of course, the Examiner cannot answer such question in the positive because the Examiner has not factually resolved (as required by the Supreme Court and Patent Office Policy) in the record the ordinary level of skill in the pertinent art. Accordingly, all of the obviousness rejections in the Office Action fail (and should be withdrawn or remade in compliance with Patent Office policy and Supreme Court requirements).

The Office Action stated that applicant argues that McCue et al. has a significantly later date than Bellamy et al. The Office Action stated that this does not matter, as long as both references are prior art. Again, the Examiner is incorrect. One ordinarily skilled in the art will consider the history of development in the art in determining what new invention would be obvious to him. The Examiner has incorrectly taken a sterile view that does not include the actual world of the reality of the pertinent art, whereas one ordinarily skilled in the pertinent art does and has to by definition (and patent law and court decisions), in making judgement of what is obvious.

The Office Action stated that applicant argues that McCue et al. is not combinable in the search for applicants' claimed invention and that without the required solvents of McCue et al., the McCue et al. system/invention is ineffective and destroyed. Applicants' position is correct because the Examiner cannot make any assert as regards obviousness because the Examiner has not made the required resolution of the level of ordinary skill in the art. As a result the Examiner does not know anything about one ordinarily skilled in the art (since he does not know the level of ordinary skill in the art).

The Office Action stated that applicant argues that McCue et al. cannot be used by itself because Bellamy et al. is present and its negative effect thereon cannot be ignored under Section 103(a). Applicants' position is correct. The Office Action stated that this is not found persuasive because McCue et al. clearly states that water may be included to dilute the

compositions (McCue et al. Col. 4, lines 43 to 45), and, thus, one does not destroy the efficacy of the composition. The Examiner's position is based on mere speculation as to the effect that McCue et al. would have on one ordinarily skilled in the art when considering the subject issue and the Examiner cannot make any assertions concerning one ordinarily skilled in the art.

The Office Action states that applicant argues that applicants claim a process of using specifically-defined disinfectant compositions as a virucidal agent and that the Examiner has incorrectly attempted to generify applicants' specific process. Applicants' position is correct. The Office Action stated that applicant argues that the statement in the Office Action that "the disinfectant composition comprises (a) an amine (la) or a quaternary ammonium compound (lb) and (b) at least one alkanolamine (11), in the mass ratio 1:11 of 20:1 to 1:20" is an incorrect attempt to generify applicants' specific ingredients/chemicals. Applicants' position is correct. The Office Action stated that applicant argues that specifically defined compounds are required by applicants' claims, not the generic approach taken by this rejection. It is well established patent law that the claims define the invention. The Office Action stated that, however, the substituents in applicant's claims (e.g., R¹-R⁵ can be alkyl) lead to a generic quaternary ammonium compound and an alkanolamine. The result is certainly not a generic quaternary ammonium compound. The Office Action stated that McCue et al. teaches that many quaternary ammonium compositions "exhibit broad spectrum bactericidal, fungicidal and virucidal activity..." (Col. 1, lines 11 to 16). The reference taken as a whole, as required by patent law, does not support one ordinarily skilled in the art being taught that the McCue et al. compositions have virucidal activity. The Office Action stated that the property of virucidal activity is implicit to the composition comprising a quaternary ammonium compound even though the reference fails to use the composition as a virucide. Silence in a reference is no substitute for the facts required by Section 103(a). Speculation by the Examiner is not sufficient showing of the facts required by the Examiner. The Examiner, as one skilled in the art by law, is requested to submitted his personal declaration to factually and technically support his assertion or position. The Office Action stated that applicant has failed to show that the composition of McCue et al. is not virucidal. This statement is of no meaning under the patent law because the Examiner has the burden of proof under Section 103(a) and he has not carried his burden of proof. He cannot carry his burden of proof because he has not made the mandatory factual resolution in the record of the ordinary level of skill in the art.

The Office Action stated that applicant argues that no prior art teaching any virucidal activity of quaternary disinfectant compositions is specifically cited in McCue et al. and the expression "quaternary disinfectant composition" merely means a composition containing a quaternary ammonium compound. Applicants' position is correct.

The Office Action stated that applicant argues that nowhere in McCue et al. is there any teaching that the alleged virucidal activity of those unspecified compositions is caused by the quaternary ammonium compound and not by another ingredient, e.g., by a virucidal agent known in the art. The applicants' position is correct and the Examiner' admissions confirms applicants' position.

The Office Action stated that applicant argues that McCue et al. is completely silent on the virucidal activity. Applicants' position correct. Silence in a reference is no substitute for the required facts. The Office Action stated that McCue et al. directs one ordinarily skilled in the art away from applicants' claimed invention. Applicants' position is correct and has not been rebutted by fact or law. The Office Action stated that McCue et al. is not a relevant reference in the quest for applicants' claimed process. Applicants position is correct – the Examiner has not shown in the record that McCue et al. is a relevant reference to one ordinarily skilled in the art (e.g., he has not even resolved the ordinary level of skill in the art). The Office Action stated that applicant also argues that there is no suggestion or teaching to use the McCue et al. compositions against viruses or that they would be virucidal. Applicants' position is correct and the Examiner has not factually otherwise in the record.

The Office Action stated that, although McCue et al. does not expressly teach the use of the composition against viruses, this does not mean that the composition of McCue et al. is not effective against viruses. This statement is totally meaningless under Section 103(a). As to the time before applicants' claimed invention, this statement is unproven in the record, is not proven by facts or references in the record, and is mere factually unproven speculation that is not proven in the record. Applicants request that the Examiner submit his own personal factual declaration to support/prove his assertion. The Office Action stated that, conversely, it implies that the virucidal effect is easier than the mycobactericidal effect. Section 103(a) requires fact, not factually unsupported speculation. The Examiner has not cited any supporting prior art. So, again, applicants request that the Examiner submit his own personal factual declaration concerning his assertion – applicants' have the right to rebut his personal factual declaration or anything else he is relying upon for his assertion.

The Office Action stated that a person having ordinary skill in the art at the time the invention was made would have arrived at the conclusion that using the McCue et al. composition would have a virucidal effect and also have a broad spectrum bactericidal and fungicidal effect. Applicants traverse this statement as having no support in the record or in the law. The Examiner has not factually resolved in the record the ordinary level of skill in the art, therefore, anything that the Examiner states concerning one ordinarily skilled in the art has no meaning under Section 103(a).

The Office Action stated that applicant argues that the McCue et al. teaching of an alkanolamine compound, such as "mono-, di- or tri-ethanolamine", is of no meaning since McCue et al. directs away from virucidal compositions. The applicants' position is correct and the Examiner has not proven otherwise. The Office Action stated that McCue et al. clearly teaches mono-, di- or tri-ethanolamine (which read on the alkanolamine of the instant claims). McCue et al. directs one ordinarily skilled in the art away for virucidal compositions. The Examiner has not proven otherwise. The Office Action stated that the discussion of the

relevance of the McCue et al. teaching with respect to the use of quaternary disinfectant compositions for broad spectrum bactericidal, fungicidal and virucidal activity is stated above. The above discussion of McCue et al. has been shown above to be insuficient and to not show such relevance. The Office Action stated that, therefore, the argument that McCue et al.'s teaching of an alkanolamine is "of no meaning" is unclear. Applicants' assertion, fully shown, applies to the virucidal issue.

The Office Action states that applicant argues that there is no support for the statement regarding the obviousness of the mass ratio of quaternary ammonium compound to alkanolamine as 20:1 to 1:20. Applicants' assertion is correct since the Examiner has not established the foundation required by the Supreme Court and Patent Office policy. The Office Action stated that applicant argues that regarding the mass ratio limitation of instant Claims 4, 13, 14 and 15, the Examiner cannot make any statement regarding one ordinarily skilled in the art and that he does not know what is the ordinary level of skill in the art. Applicants' position is correct, as per Patent Office policy and the Supreme Court. The Office Action stated that applicant argues that a wrong standard was used regarding varying the ratio of the quaternary ammonium compound and the alkanolamine in the process of routine experimentation in order to achieve the desired virucidal or disinfectant activity. Applicants not only argue that the wrong standard is being used, applicants have established that the Examiner is not using the correct standard.

The Office Action stated that although McCue et al. does not expressly teach the mass ratio of quaternary ammonium compound to alkanolamine as 20:1 to 1:20, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to arrive at the claimed mass ratio during the process of routine experimentation to optimize the desired virucidal or disinfectant activity. Applicants traverse this statement because the Examiner has not established the required three-element foundation or the ordinary level of skill in the art. The Examiner has no basis in the record to say anything concerning what would be obvious to

one ordinarily skilled in the art. The Office Action stated that McCue et al. teaches a mass ratio of quaternary ammonium compound to alkanolamine of 1:7.7 (Ex. 1 and Ex. 3) and 1:39 (Ex. 4). Since McCue et al. has not been established to be a relevant reference to one ordinarily skilled in the art and since this is not an anticipation rejection, what McCue discloses is of no meaning under Section 103(a).

The Office Action stated that Section 2144.05 of MPEP states: "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. '[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.' In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)". This statement from the M.P.E.P. is meaningless under Section 103(a). The Foreword of the M.P.E.P states "The Manual does not have the force of law or the force of the rules...." [Emphasis supplied] The Supreme Court has decided the meaning and requirements of Section 103(a), and it is stated Patent Office policy to follow the Supreme Court's Graham decision. Since the above quotation from the M.P.E.P. does not first require resolution in the record of the level of ordinary skill in the art, it is meaningless under Section 103(a) and does not provide any basis for decision by the Examiner under Section 103(a). As regards the quotation from the cited CCPA decision in the above M.P.E.P. quotation, its is also meaningless under Section 103(a) because the CCPA is lower court than the Supreme Court and the Supreme Court has required that the level of ordinary skill in the art must first resolved before any decision of obviousness under Section 103(a) can be made. Patent Office policy is that the Graham decision in the matter must be followed by examiners.

The Office Action stated that applicant argues that Section 103(a) deals with one ordinarily skilled in the art, not one skilled in the art. The Office Action stated that the Examiner recognizes that Section 103(a) deals with a person having ordinary skill in the art. This

statement is of no consequence re Section 103(a) because the Examiner did not resolve the level of ordinary skill in the art.

The Office Action stated that applicant argues that this rejection is faulty on its face because the Examiner has not factually resolved, as is mandatory in the record, the level of ordinary skill in the art. Applicants' assertion is correct and has not been disproven by the Examiner.

The Office Action stated that however, the Examiner considered:

- (1) The scope and content of the prior art (McCue et al. teaches that many quaternary ammonium compositions "exhibit broad spectrum bactericidal, fungicidal and virucidal activity...") (Col. 1, lines 11 to16),
- (2) The differences between the claimed invention and the prior art (McCue et al. does not expressly teach that the process of utilizing the composition against parvoviruses, picornaviruses and polioviruses),
- (3) The level of ordinary skill in the pertinent art (a person having ordinary skill in the art would know how to titrate the composition in order to maintain the disinfecting efficacy), and
- (4) Objective evidence relevant to the issue of obviousness (McCue et al. teaches that the compositions may be applied to a surface which is need of disinfection) (Col. 5, lines 54 to 56).

That the Examiner considered the above matters is meaningless under Section 103(a), the Supreme Court decision and Patent Office policy. The Graham decision (and KSR decision) requires <u>resolution</u> of such factual inquiries (1) to (3), not mere consideration. The Examiner has not factually resolved in the record all of the three factual inquiries forming the foundation before any obviousness decision can be made (this was firmly confirmed in the KSR decision). The Examiner has not factually resolved in the record the level of ordinary skill in the art – the obviousness rejections are fatally defective and, accordingly, fail. Any reliance on the M.P.E.P.

that is in conflict with the Supreme Court decisions and Patent Office policy is of no value under Section 103(1).

The Examiner has no basis for not resolving the level of ordinary skill in the art. In essence, applicants have been denied their right for such factual resolution to be made in the record, and applicants have been denied their right to rebut (or to try to rebut) such factual resolution. The attempt in (3) on page 7 of the Office Action is not a resolving of the level of ordinary skill in the art as it is a mere statement without the required disclosure in the record of the facts, references relied upon, analysis used, etc. The Supreme Court and Patent Office policy requires "the level of ordinary skill in the pertinent art resolved". Where in the written record is there the written record of the investigation, the facts and references considered, the analysis, the pro and con factors and prior art considered, etc., by the Examiner in the act of resolving the factual inquiry of the level of ordinary skill in the art? It is not in the written record. It has not been put by the Examiner into the written record as is required of the Examiner. All that is present is a statement, which is not the same as "resolving". The M.P.E.P., 2141, I, states that "resolving" is required - is a verb - not a mere statement.

If the Examiner continues (erroneously) to assert that he resolved the level of ordinary skill in the pertinent art, then he has essentially admitted that such resolving is required and that he did not make such resolving for the first Office Action. That means that the first obviousness rejections were defective (as asserted by applicants) and the supposed first resolving did not occur until the final Office Action, without any justifiable reason why it was not done until then. With lack in the written record of the "resolving" (prior art considered, analysis, etc.) and the late assertion (only after final rejection) that the mere statement is a "resolving", has denied applicants their right to rebut the supposed resolving, their right to analyze the underlying references and other information used by the Examiner plus his reasoning, and to know if the Examiner did any actual "resolving". The burden of proof is on the Examiner so he has the burden of putting such information in the written record, or else he cannot have carried his

burden of proof. Without such information in the record, there is no basis for saying that the Examiner has resolved the ordinary level of skill in the pertinent art (let alone that it is a correct resolving of the ordinary level of skill in the pertinent art).

Applicants are aware that having to resolve (in the correct and complete way) the ordinary level of skill in the art is a heavy burden of time and effort required by the Examiner, but that factor is no reason not to do that which is required by Patent Office policy and the Supreme Court decisions. Applicants should not be denied a patent under Section 103(a) because the Patent Office policy, the Supreme Court and the statue have put a certain requirement on the Examiner that makes him expend more time and effort in order to make a valid obviousness rejection. [To implement its policy, so examination occurs as such policy envisions and requires, the Patent Office may have to give the examiners more time per application and/or charge applicants more – but so be it if such in necessary to prevent the incorrect denial of applicants, patents under Section 103(a).]

If the Examiner used (or does use) any reference in his resolving, then the current obviousness rejection is invalid for not stating that such reference was part of the rejection (it being used in a required factual inquiry necessary to make the obviousness rejection). See M.P.E.P., 706.02(j).

The statement asserted by the Examiner certainly is not a statement of the ordinary level of skill in the art. Instead, it appears that such statement is at most merely a statement of a narrow point that the Examiner wants to support via avoidance of actually resolving the ordinary level of skill in the art. Some of the factors and elements that are to be considered are set out in the M.P.E.P., 2141.03. There is no evidence of record that the Examiner considered such factors and elements — or else, the narrowness of the incorrectly alleged resolution of the ordinary level of skill in the art would not be present. If only prior art of record has facts on the ordinary level of skill, such prior art can be used to reflect the ordinary level of skill. However,

the Examiner would still have to analyze all of such prior art to establish actually what is the level of ordinary level of skill that such prior art reflects.

The Supreme Court in its KSR decision stated that the Graham decision set out "a framework for applying the statutory language of § 103", that the analysis is "objective", that "under § 103,...the level of ordinary skill in the pertinent art resolved.", and that "the factors continue to define the inquiry that controls.". The Examiner has not complied with such requirements so none of the obviousness rejections are viable.

## 37 CFR 1.2 states:

"All business with the Patent and Trademark Office should be transacted in writing....The action of the Patent Office will be based exclusively on the written record in the Office."

The record is void of any indication of what prior art and information (if any) that the Examiner considered and relied on (if he did such) to supposedly determine the supposed level of ordinary skill in the art. This factor alone shows that the obviousness rejections fail and that the supposed resolving of the level of ordinary skill in the art also fails. See also M.P.E.P., 713.04, re 37 CFR 1.2. Applicants dispute that the statement advanced by the Examiner is the level of ordinary skill in the art and point out that the Examiner's failure to put the information and prior art considered, etc., in the supposed determination of the level of ordinary skill in the art has resulted in the denial of applicants' right to rebut the Examiner's supposed determination. The Examiner's failure to include the supposed determination (and indication of the supposed supporting facts) in the first Office Action also denied applicants the right to rebut.

Webster's Ninth New Collegiate Dictionary, 1989, states:

"resolve...4...b: to find the answer to" [page 1004]

"inquire...2: to search into, investigate...2: to make an investigation or inquiry" [page 624]

"inquiry...2: a systematic investigation..." [page 624]

"analysis...2: a an examination of a complex its elements, and their relationship" [page 82]

It is apparent that the Examiner did not do that required by such definitions or failed to put the efforts, references and information considered, etc., into the written record. Either destroys the obviousness rejections.

Please note, by law, that the Patent Office is subject to the policy direction of the Secretary Of Commerce – only the President is higher in the Executive Branch of government. Also please note, by law, the Under Secretary Of Commerce For Intellectual Property (who is also the Director Of The United States Patent And Trademark Office) is responsible for providing policy direction for the Patent Office.

The Office Action stated that applicant argues that the McCue et al. teachings of didecyl dimethyl ammonium chloride as being obvious to one skilled in the art as a quaternary ammonium salt is meaningless – wrong standard. It is the wrong standard. One skilled in the art is not the standard under Section 103(a). The Office Action stated that applicant does not explain why this teaching of a quaternary ammonium salt is meaningless and wrong. One skilled in the art has nothing to do with Section 103(a). The Office Action stated that, therefore, the Examiner maintains that McCue et al. teaches a quaternary ammonium salt. This statement is entirely different from the one above that said what would be obvious to one skilled in the art. But the Examiner still has no basis in the record to assert that McCue et al. would be a relevant reference to one ordinarily skilled in the art.

The Office Action states that applicant argues that the statement of the McCue et al. teaching of an ethanolamine such as mono-, di- or tri-ethanolamine as being obvious to one skilled in the art as an alkanolamine compound is in error and the Examiner has not factually resolved the ordinary level of skill in the art, hence he knows nothing about one ordinarily skilled in the art or what would be obvious to such to such a person.

The Office Action stated that, however, as shown above, the Examiner determined the ordinary level of skill in the art in and since McCue et al. teaches an alkanolamine, the rejection will be maintained. Applicants traverse this statement. As applicants have shown, the Examiner did not resolve the ordinary level of skill in the art because, among things, there is nothing in the written record submitted by the Examiner to shown that he did the required resolving. A mere statement is not a resolving as required by Patent Office policy, the Supreme Court and the patent statute. There is nothing in the record in the way of statements that certain references were analyzed, that various information was used, that the Examiner relied on his own experience or the like (in which case, his own personal declaration setting out facts regarding his experience, education, etc., that where used), etc., in the process of resolving the facts to make the statement resulting from the resolving process. The burden of proof is upon the Examiner and the Patent Office operates on a written record.

The Office Action stated that applicant argues that the Examiner has not made all of the required factual inquiries of the Graham decision regarding the limitation of water as a solvent for the disinfectant composition of instant Claims 5, 16, 17 and 18. Applicants' position was correct and is still correct (based on the current written record). Resolving, as required, requires more than making a mere statement and requires the resolving process (with analysis, the facts and references used, the Examiner's reasons re particular reference or information, etc.) be of written record because it explains the facts, reasons, analysis, etc., underlying one of the required elements for the Examiner to make obviousness rejections.

The Office Action stated that applicant argues that the Examiner has no basis for any statement re one ordinarily skilled in the art with respect to the composition comprising auxiliaries of instant Claims 6, 19, and 20. Applicants have shown that their position is correct. The Office Action stated that the basis for the statement is that McCue et al. teaches optional ingredients in the composition including fragrances, surfactants, and chelating agents (Col. 4, lines 23 to 26). The Examiner does not have any basis for making any statement regarding one

ordinarily skilled in the art. The Office Action stated that a person having ordinary skill in the art at the time the invention was made would have understood from this McCue et al. teaching that these optional components can be added to the disinfectant composition and still retain the disinfection effect. Applicants traverse this statement as being incorrect because the Examiner does not have any basis for making statement of what one ordinarily skilled in the art would understand.

The Office Action stated that a person having ordinary skill in the art would add fragrance or color depending on the desired attributes of the application without altering the disinfectant or germicidal activity of the composition comprising quaternary ammonium compounds. Applicants traverse this statement because the Examiner does not know what one ordinarily skilled in the art would do. The Examiner does not know the ordinary level of skill in the art because the record does not show resolving of such required matter.

The Office Action stated that applicant argues that no Graham inquiry was made or ordinary skill regarding the surface disinfection and instrument disinfection of instant Claims 7, 21 and 22 (as well as for the limitations of laundry disinfection, hand disinfection, and in chemical toilets of claims 8 to 10 and 23 to 28). The applicants' position is correct and has not been proven to be otherwise.

The Office Action stated that applicant argues that dependent claims are unobvious since the independent claim is unobvious. Applicants' position is correct because the obviousness rejection of the independent claim has been faulty and fails. The Office Action stated that, however, the demonstration of the consideration of the Graham factual inquiry is stated above. Applicants traverse this statement. The Examiner, as shown above, has not made the resolving of the ordinary level of skill in the art. The Office Action stated that since McCue et al. teaches the use of the composition to disinfect instruments, apparatuses and in a wide variety of environments which may benefit from a disinfecting effect (Col. 4, lines 51 to 53), a person having ordinary skill in the art at the time the invention was made would a have found

it obvious to use the composition for laundry disinfection, hand disinfection, and in chemical toilets (which are all environments that may benefit from a disinfecting effect). The Examiner has not conducted resolving of the ordinary level of skill in the art – there is nothing in the written record factually showing that resolving occurred.

The Office Action stated that, therefore, the rejection of 4/23/07 is maintained.

This rejection should be withdrawn.

The Office Action stated that applicant's arguments, see pages 10 and 16 to 18, filed 10/23/2007, with respect to the rejection of Claims 11 and 29 to 33 under 35 USC § 103(a) as being unpatentable over McCue et al. (U.S. Patent No. 5,908,854) in view of Bellamy et al. (WO 94/22305) have been fully considered but are not persuasive. This rejection fails in law and fact.

Claims 11 and 29 to 33 have been rejected under 35 U.S.C. 103(a) as being unpatentable over McCue et al. (U.S. Patent No. 5,908,854) in view of Bellamy et al. (WO 94/22305). Applicants traverse this rejection.

Applicants have shown above that the rejection on McCue et al. fails. Bellamy et al does not cure the defects of McCue et al., and vice versa, in the search for the claimed invention of applicants' rejected dependent claims.

The Office Action stated that applicants argue that McCue et al. directs one ordinarily skilled in the art away from the use of a virucidal agent. McCue et al. does not teach the use of its composition against any viruses.

The Office Action stated that, as stated above, although McCue et al. does not expressly teach the use of the composition against viruses, this does not mean that the composition of McCue et al. is not effective against viruses. There is no reason to even imply that the McCue et al. compositions are effective against viruses. The rejection statement is mere speculation, whereas Section 103(a) requires facts. The Office Action stated that, conversely, it implies that the virucidal effect is easier than the mycobactericidal effect. Applicants have shown above that

this statement has no supporting facts of record pointed to by the Examiner. The Office Action stated that a person having ordinary skill in the art at the time the invention was made would have arrived at the conclusion that using the McCue et al. composition would have a virucidal effect and also have a broad spectrum bactericidal and fungicidal effect. The Examiner has no basis in the record to assert anything about what would be obvious or would not be obvious to one ordinarily skilled in the art.

The Office Action stated that applicant argues that Bellamy et al. does not cure the defects of McCue et al. Applicants' position is correct. The Examiner has no basis for asserting that one ordinarily skilled in the art would combine McCue et al. and Bellamy et al. in the quest for applicants' claimed invention. The Examiner has not carried his burden of proof.

The Office Action stated that, however, McCue et al. does not expressly teach the use of the composition against viruses. One ordinarily reading McCue et al. would come to the conclusion that McCue et al. is not pertinent to the killing of viruses.

The Office Action stated that Bellamy et al. expressly teaches a virucidal composition suitable as a hospital disinfectant, comprising alkaline material and an alktl quaternaru nitrogen salt, effective for killing polioviruses and disinfecting heat sensitive medical instruments (Abstract). One ordinarily skilled in the art would not combine Bellamy et al. and McCue in the search for applicants' claimed invention. The Examiner cannot disagee with such statement because the Examiner has not resolved the level of ordinary skill in the art. The Office Action stated that, therefore, to a person having ordinary skill in the art, Bellamy et al. cures the deficiency of McCue et al. Applicants assert that this statement is clearly incorrect. The absence of the required resolving in the record shows that the Examiners' assertion has no spport in the law.

The Office Action stated that applicant argues that the compositions of the instant application do not contain ethoxylated alkyphenois. Applicants' position is correct. The Office Action stated that, however, the instant claims have the term "comprising" which allows for the

presence of these solvents. The Examiner has no basis to assert that one ordinarily would have reason to insert such solvents into applicants claims because the Examiner does not know the ordinary level of skill in the art.

The Office Action states that applicant argues that a person of ordinary skill in the art will recognize that the last part of the statement (Col. 4, lines 38 to 40) is wrong scientifically and factually since viruses do not have a cell wall. Applicants assertion is scientifically correct and is a compelling reason why one ordinarily skilled in the art would throw away McCue in the search for applicants' claimed invention. The Office Action stated that the Examiner recognizes the error in the McCue et al. reference regarding the fact that viruses do not have cell walls. This statement does not mean that McCue would be used by one ordinarily skilled in the art.

The Office Action stated that applicant argues that Claim 1 is unobvious so these dependent claims are also unobvious and that one ordinarily skilled in the art would not consider Bellamy et al. to be a relevant reference. Applicants have shown that both parts of applicants' argument are correct. The Office Action stated that applicant argues that one ordinarily skilled in the art has no basis for paying no attention to core assertions of the later McCue et al. Applicants have shown that this assertion is correct and the one ordinarily skilled in the art would not use against applicants' claimed invention.

The Office Action stated that, however, although McCue et al. does not expressly teach the use of the composition against viruses, this does not mean that the composition of McCue et al. is not effective against viruses. This speculation is of no meaning under Section 103(a). The Office Action stated that conversely, it implies that the virucidal effect is easier to achieve than the mycobactericidal effect. The Examiner has not presented any proof in the record to support this statement that is not based on any proof in the record. The Office Action stated that a person having ordinary skill in the art at the time the invention was made would have arrived at the conclusion that using the McCue et al. composition would have a virucidal effect and also have a broad spectrum bactericidal and fungicidal effect. This statement is mere speculation

without any proof in the record having been advanced by by the Examiner. Also, the Examiner does not have any basis to make any assertion of what would be obvious to one ordinarily skilled in the art.

The Office Action stated that applicant argues that regarding the combination of the use of the disinfectant composition taught by McCue et al. with the virucidal (particularly against poliovirus) Bellamy et al. composition, the Examiner cannot make any statement re one ordinarily skilled in the art. The Examiner has no basis of record to make any statements re one ordinarily skilled in the art. Furthermore, the Examiner has not shown that the two rejections can be combined in the search for applicants' claimed invention.

The Office Action stated that applicant argues that both reference are not relevant and McCue et al. directs away from applicants' claimed invention. Applicants have shown that both of applicants' positions are correct. The Office Action stated that however, since the question of obviousness was resolved on the basis of the Graham factual inquiries, the Examiner can make statements about a person having ordinary skill in the art (see discussion above). Applicants traverse this statement. Applicants have shown above that the Examiner has not resolved in the record the ordinary level of skill in the art.

The Office Action stated: that, regarding the combination of references, all of the claimed elements are found in McCue et al. and Bellamy et al. and one skilled in the art could have combined the elements and the combinations would have yielded predictable results; and see KSR International Co. v. Teleflex Inc., 550 U.S.-,82 USPQ2d 1385 (2007). KSR requires resolving of the ordinary level of skill in the art. This has not been done in the record by the Examiner, hence the above Office Action statement is of no value or meaning under Section 103(a).

The Office Action stated that, therefore, the rejection of 4/23/07 is maintained. This rejection should be withdrawn.

The Office Action stated that the following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18 and 19 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention.

The Office Action stated that dependent Claims 18 and 19 do not recite a "process for utilizing" a disinfectant composition and are therefore indefinite. Both claims have been amended to recite such phrase.

The Office Action stated that Claims 18 and 19 have been rejected under 35 U.S.C. 101 because of the lack of a recitation of a process. The amendments are believed to cure the problem. Entry of the claim amendments is requested as such would reduce the issues on appeal.

Withdrawal of this rejection is requested.

The Office Action stated that the following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 to 10 and 12 to 28 have been rejected under 35 U.S.C. 103(a) as being unpatentable over McCue et al. (U.S. Patent No. 5,908,854). Applicants traverse this rejection

and have shown above why this rejection is incorrect and fails. The above comments and information of applicants and in applicants' prior amendment are incorporated herein.

The Office Action stated: that the claimed invention is a process of using a disinfectant composition comprising (a) an amine (formula la) or a quaternary ammonium compound (lb) and (b) at least one alkanolamine (formula II), in the mass ration 1:11 of 20:1 to 1:20; that the disinfectant composition is used as a virucidal agent; and that the virucidal agent is used against parvoviruses, picornaviruses, or polioviruses; that McCue et al. teaches a composition effective against mycobacteria, and methods for using the composition (Abstract); that the composition comprises about 0.1% wt. to about 25% wt. of a germicidal cationic quaternary compound, about 0.25% wt. to about 25% wt. of a solvent and water (Abstract); that McCue et al. does not expressly teach the mass ratio of quaternary ammonium compound to alkanolamine as 20:1 to 1:20 or the uses of the composition against parvoviruses or polioviruses; that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the composition comprising a germicidal quaternary ammonium compound, and an alkanolamine as a disinfectant, as suggested by McCue et al., and produce the instant invention; that one of ordinary skill in the art would have been motivated to do this because although McCue et al. does not expressly teach the use of the composition against viruses, this does not mean that the composition of McCue et al. is not effective against viruses; that, conversely, it implies that the virucidal effect is easier to achieve than the mycobactericidal effect; that a person having ordinary skill in the art at the time the invention was made would have arrived at the conclusion that using the McCue et al. composition would have a virucidal effect and also have a broad spectrum bactericidal and fungicidal effect; that, from the teachings of the reference, it is apparent that one of ordinary skill in the art would have a reasonable expectation of success in producing the claimed invention; that, therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary; that instant Claim 1 recites

limitations of the composition comprising (a) an amine (la) or quaternary ammonium salt (lb) and (b) at least one alkanolamine of formula II; that substituents for the compounds are recited; that McCue et al. teaches quaternary ammonium compounds and salts thereof including quaternary ammonium germicides; that the substituents (R<sub>1</sub> to R<sub>4</sub>) of the quaternary ammonium compounds taught by McCue et al. are hydrophobic, aliphatic, aryl aliphatic or aliphatic aryl radical of from 6 to 26 carbon atoms (Col. 2, lines 11 to 35); that McCue et al. teaches an alkanolamine compound, such as "mono-, di- or tri-ethanolamine" (Col. 4, lines 13 to 16); that, although McCue et al. does not specifically teach the mass ratio of quaternary ammonium compound to alkanolamine as 20:1 to 1:20, it would have been obvious to one skilled in the art to arrive at the claimed mass ratio during the process of routine experimentation to optimize the desired virucidal or disinfectant activity; that, also, McCue et al. teaches that many quaternary ammonium compositions "exhibit broad spectrum bactericidal, fungicidal and virucidal activity..." (Col. 1, lines 11 to 16); that, therefore, a person having ordinary skill in the art would find it obvious that the instant invention would be effective as a virucidal agent. Applicants' have shown that this rejection of applicants' independent claim is incorrect and should be withdrawn.

The Office Action stated: that, regarding instant Claim 2, McCue et al. teaches didecyl dimethyl ammonium chloride (Col. 3, lines 15 and 16); that since the instant claims recite the composition comprising an amine and/or a quaternary ammonium salt, a person having ordinary skill in the art would find it obvious to recognize the didecyl dimethyl ammonium chloride taught by McCue et al. as a quaternary ammonium salt (which is part of the instant composition); that the alkanolamine limitation of instant Claims 3 and 12 would have been obvious to one of ordinary skill in the art over the McCue et al. teaching of "an alkanolamine compound, particularly an ethanolamine such as mono-, di- or tri-ethanolamine" (Col. 4, lines 13 to 16); that regarding the mass ration limitation of instant Claims 4, 13, 14, and 15, although McCue et al. does not expressly teach the mass ratio of quarternary ammonium compound to alkanolamine as 20:1 to 1:20, it would have been obvious to a person having ordinary skill in the art at the

time the invention was made to arrive at the claimed mass ratio during the process of routine experimentation to optimize the desired virucidal or disinfectant activity; that McCue et al. teaches a mass ratio of quaternary ammonium compound to alkanolamine of 1:7.7 (Ex. 1 and Ex.3) and 1:39 (Ex. 4); that Section 2144.05 of MPEP states: "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicting such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)"; that the limitation of water as a solvent for the disinfectant composition of instant Claims 5, 16 and 18 would have been obvious to one of ordinary skill in the art over the McCue et al. teaching of "compositions...dilutable in a larger volume of water" (Col. 4, lines 43 to 45); that the limitations of the composition comprising aids of instant Claims 6, 29, and 20 would have been obvious to one of ordinary skill in the art over the McCue et al. teaching of optional ingredients in the composition including "fragrances, surfactants, ... chelating agents, ..." (Col. 4, lines 23 to 26); that a person having ordinary skill in the art at the time the invention was made would have understood from this McCue et al. teaching that these optional components can be added to the disinfectant composition and still retain the disinfection effect; that a person having ordinary skill in the art would add fragrance or color depending on the desired attributes of the application without altering the disinfectant or germicidal activity of the composition comprising quaternary ammonium compounds; that the limitation of surface disinfection and instrument disinfection of instant Claims 7, 21 and 22 would have been obvious to one of ordinary skill in the art over the McCue et al. teaching of using the compositions "in a wide variety of disinfecting applications, and in a wide variety of environments which may benefit from a disinfecting effect (Col. 4, lines 51 to 53); that McCue et al. further teaches "disinfection of instruments and apparatuses, ...disinfection or decontamination of hospital environments including lavatories and lavatory fixtures, ..." (Col. 4,

lines 55 to 64); that similarly, one with ordinary skill in the art would find it obvious to use the disinfectant composition of the instant application in laundry disinfection, hand disinfection, and in chemical toilets (limitations of instant Claims 8 to 10 and 23 to 28), which are all environments that may benefit from a disinfecting effect.

This rejection should be withdrawn.

Claims 11 and 29 to 33 have been rejected under 35 U.S.C. 103(a) as being unpatentable over McCue et al. (U.S. Patent No. 5,908,854), in view of Bellamy et al. (WO 94/22305). Applicants traverse this rejection and have shown above and in applicants' prior amendment why this rejection is incorrect and fails. The above comments and information of applicants and in applicants' prior amendment are incorporated herein.

The Office Action stated: that the teaching of McCue et al. is stated above; that McCue et al. does not specifically teach the use of the composition against parvoviruses, picornaviruses, or polioviruses; that Bellamy et al. teach an aqueous virucidal composition suitable as hospital disinfectant, comprising alkaline material and an alkyl quaternary nitrogen salt, effective for killing polioviruses and disinfecting heat sensitive medical instruments (Abstract); that Bellamy et al. uses dialkyl dimethyl quaternary ammonium chloride as an example (Page 5, lines 15 to 17); that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the composition comprising a germicidal quaternary ammonium compound, and an alkanolamine as a disinfectant, as suggested by McCue et al., combine it with the virucidal composition, as suggested by Bellamy et al., and produce the instant invention; that one of ordinary skill in the art would have been motivated to do this because Bellamy et al. demonstrates the effectiveness of the anti-viral disinfectant composition, particularly against poliovirus (Page 8, lines 1 to 7); and that, regarding instant Claims 11 and 29 to 33, the limitation of the virucidal agent utilized against paroviruses, picornaviruses or polioviruses would have been obvious to one of ordinary skill in the art over

the effectiveness of the anti-viral disinfectant composition, particularly against poliovirus as taught by Bellamy et al. (Page 8, lines 1 to 7).

This rejection should be withdrawn.

Reconsideration, reexamination and allowance of the claims are requested

Respectfully submitted,

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